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FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 12

[PS Docket No. 14-193; PS Docket No. 13-75; FCC 14-186]

911 Governance and Accountability; Improving 911 Reliability

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: In this document the Federal Communications Commission (Commission) affirms core principles guiding its approach to 911 governance and proposes mechanisms to ensure, in cooperation with state and local partners, that the nation's 911 governance structure keeps pace with evolving technology so that all entities providing 911 service capabilities remain accountable for reliable 911 call completion and accurate situational awareness. This document proposes steps to address vulnerabilities in 911 reliability that have been revealed by a series of recent "sunny day" 911 outages, including the April 2014 multi-state outage that was the subject of a recent report by the Public Safety and Homeland Security Bureau (Bureau). Specifically, this document proposes to amend the Commission's 911 reliability certification rules to cover additional entities and network reliability practices; require public notification for major changes in multi-state 911 networks and services, and Commission approval for discontinuance of existing 911 services; require entities seeking to provide new 911 capabilities to certify as to their technical and operational capability to provide reliable service; and designate certain 911 service providers to take lead responsibility for situational awareness and coordination with other service providers in the event of a 911 outage.

DATES: Submit comments on or before **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]** and reply comments by **[INSERT DATE 75 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. Written comments on the Paperwork Reduction Act proposed information collection requirements must be submitted by the public, Office of Management and Budget (OMB), and other interested parties on or before **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: You may submit comments, identified by docket numbers PS 14-193 and PS 13-75, by any of the following methods:

- Federal Communications Commission's Web Site: <http://fjallfoss.fcc.gov/ecfs2/>. Follow the instructions for submitting comments.
- Mail: U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington DC 20554. Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- People with Disabilities: Contact the FCC to request reasonable accommodations (accessible format documents, sign language interpreters, CART, etc.) by e-mail: FCC504@fcc.gov or phone: 202-418-0530 or TTY: 202-418-0432.

In addition to filing comments with the Secretary, a copy of any comments on the Paperwork Reduction Act information collection requirements contained herein should be submitted to the Federal Communications Commission via email to PRA@fcc.gov and to Nicholas A. Fraser, Office of Management and Budget, via email to Nicholas_A._Fraser@omb.eop.gov or via fax at 202-395-5167. Parties wishing to file materials with a claim of confidentiality should follow the

procedures set forth in section 0.459 of the Commission's rules. Confidential submissions may not be filed via ECFS but rather should be filed with the Secretary's Office following the procedures set forth in 47 CFR 0.459. Redacted versions of confidential submissions may be filed via ECFS. For detailed instructions for submitting comments and additional information on the rulemaking process, see the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: Eric P. Schmidt, Attorney Advisor, Public Safety and Homeland Security Bureau, (202) 418-1214 or eric.schmidt@fcc.gov. For additional information concerning the Paperwork Reduction Act information collection requirements contained in this document, contact Benish Shah at (202) 418-7866 or send an email to PRA@fcc.gov.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Policy Statement and Notice of Proposed Rulemaking (NPRM) in PS Docket No. 14-193 and PS Docket No. 13-75, released on November 21, 2014. The full text of this document is available for public inspection during regular business hours in the FCC Reference Center, Room CY-A257, 445 12th Street SW, Washington, DC 20554, or online at <http://www.fcc.gov/document/911-governance-and-accountability-policy-statement-and-nprm>.

Synopsis of Policy Statement and Notice of Proposed Rulemaking

I. Introduction

One of the fundamental purposes for which Congress created the Federal Communications Commission is to “promot[e] safety of life and property through the use of wire and radio communications.” Nowhere does the Commission give higher expression to this overarching obligation than in its efforts to ensure that the American people have access to reliable and resilient 911 communications service. To be sure, this is not the Commission's

responsibility alone. State regulators and local emergency response agencies play critical roles in ensuring that 911 is available when needed and that every 911 call will be answered, and it is undoubtedly in the public interest that the Commission should work in close partnership with these stakeholders to carry out its responsibility. Nevertheless, we know that the technologies and commercial relationships that form the foundation of the 911 system are transitioning and, as a result, becoming increasingly interstate in nature. The Commission is uniquely positioned to ensure 911 reliability on a national scale and across different communications platforms and technologies, to promote the deployment of new and innovative 911 technologies by an increasingly diverse array of stakeholders, and to ensure that the benefits of advanced 911 service extend to all Americans.

The importance of ensuring nationwide 911 reliability as technologies transition has been underscored by several recent disruptions of 911 service that have affected the public in multiple states or across the entire nation. For example, in April 2014, a software coding error at a Colorado-based 911 provider's call routing facility led to a loss of 911 service to a population of more than 11 million in seven states – California, Florida, Minnesota, North Carolina, Pennsylvania, South Carolina, and Washington – for up to six hours. In addition, the state of Hawaii has experienced multiple disruptions in 911 service since January 2014, and the entire state of Vermont lost 911 service for 40 minutes in August 2014. A growing number of disruptions to 911 service are caused by software malfunctions, database failures, and errors in conversion from legacy to IP-based network protocols. These failures may occur in portions of the network that are not directly analogous to the legacy architecture. Moreover, these new modes of failure have the potential to affect many states at once, or even all of a service provider's customers nationwide.

While innovative technologies have the potential to improve many aspects of 911 service and enhance the ability of first responders to do their jobs more effectively, these recent outages have revealed that technology changes may also introduce new vulnerabilities. While the Commission has previously undertaken to monitor the transition to Next Generation 911 (NG911) technologies to determine whether our rules should be revised or expanded to cover new best practices or additional entities, recent events have demonstrated that the pace of change already requires prompt action to review these vulnerabilities. Failure to take appropriate action risks undermining the reliability and resiliency of current 911 services and endangering the transition to NG911 technologies that offer even greater public safety benefits. The American public must have confidence that 911 will work every time help is needed. Any failure to meet this expectation puts individual lives at stake and erodes vital public trust in our nation's emergency services.

In this Policy Statement and Notice of Proposed Rulemaking, we affirm the core principles that have guided and will continue to guide the Commission's approach to ensuring reliable and resilient 911 service and its continuing partnership with state and local authorities. We propose specific rules designed to address failures leading to recent multi-state 911 outages, based on the October 2014 report of the Public Safety and Homeland Security Bureau. Finally, we propose additional mechanisms designed to ensure that our 911 governance structure keeps pace with evolving technologies and new reliability challenges so that all 911 service providers remain fully accountable to the public they serve.

II. Policy Statement

It is the policy of the Commission to encourage and support efforts by states and localities to deploy comprehensive end-to-end emergency communications infrastructure and

programs, including seamless, ubiquitous, reliable 911 service. As IP-based 911 service providers transition to architectures that extend beyond the boundaries of any state and implement network changes that may affect quality of service on a regional or national scale, consistent and collaborative governance is not just good governance, but essential to maintaining the vital public benefits of 911. Together with our state and local partners, the Commission has the public safety imperative to oversee each of the increasingly complex component pieces of the nation's 911 infrastructure, and to ensure that service providers within our respective jurisdictions are held fully accountable for providing reliable 911 service to all Americans. Where there are multi-state aspects of the 911 architecture or technology trends that may increase the risk of failure or cause confusion to PSAPs and end-users, the Commission must, and will, take a leadership role in resolving such risks and confusion.

While we seek comment on specific proposals designed to address the challenges of the transition to NG911, we believe it would be useful at the outset to articulate the general goals that serve as a framework for these proposals. We start from the proposition that all entities providing 911 communications services, both incumbents and new entrants, occupy a unique position of public trust. Increased innovation and enhanced competition in the 911 ecosystem bring tremendous potential to enhance the functionality and utility of 911, but these transitions must be managed in a manner that maximizes the availability, reliability, and resiliency of the 911 network, and ensures the accountability of all participants in the 911 communications ecosystem. Therefore, we believe that every entity with a role in 911 call completion should be guided by two principles: First, any new elements of 911 architecture or service should have the necessary redundancy and reliability safeguards, along with the appropriate governance mechanisms, to maximize reliability and protect public safety. Second, significant changes in

911 service should be coordinated in a transparent manner with the Commission and with state and local authorities. To the extent that technology transitions and changes in the market for 911 services create real or perceived gaps in the delivery of reliable and resilient 911 service, the Commission will act, in cooperation with state and local partners, to close those gaps and set clear expectations regarding each service.

III. Notice of Proposed Rulemaking

In this Notice of Proposed Rulemaking, we first seek comment on specific proposals to advance the principles described above by ensuring that the Commission’s 911 rules keep pace with changing technology. We then seek comment on whether it may be appropriate to take further steps, in coordination with state and local authorities, to promote a national governance structure that proactively increases end-to-end accountability and produces measurable results. By initiating this rulemaking, we do not intend to impose “one-size-fits-all” mandates on the nation’s 911 infrastructure when different states and communities need flexibility to respond to each situation in the way that best suits their particular circumstances. Rather, we seek to ensure that the Commission remains equipped, consistent with its statutory mandates and existing legal authority, with the proper regulatory tools to enforce continued and clear lines of accountability for reliable 911 call completion, including as the nation transitions to an IP-based NG911 architecture.

We also emphasize that the purpose of this rulemaking is not to supplant state action. To the contrary, consistent with our statutory mandate under the 911 Act, our goal is to “encourage and support efforts by States to deploy comprehensive end-to-end emergency communications infrastructure,” and to “consult and cooperate with State and local officials” when developing national policies with respect to 911 governance, implementation, and reliability. We recognize

that many decisions regarding 911 deployment, operations, and cost recovery are best made at the state and local level, and continued oversight by states and localities is vital to ensuring that 911 service remains effective and reliable in every community across the country. Our action today is intended to ensure that state and local partners continue to be empowered to fulfill this important oversight responsibility within their jurisdictions, and we seek comment on a variety of ways that the Commission can assist in local, state, and regional efforts to maintain and improve 911 service quality. Thus, we do not intend to interfere with the right of state and local 911 authorities to contract for the services they desire or to determine the best path for deployment of NG911 technologies within their jurisdictions. We also note that, in appropriate circumstances, federal rules may ease burdens on state and local jurisdictions by obviating the need for them to promulgate their own potentially disparate requirements.

A. Revisions to 47 CFR 12.4

The Commission adopted § 12.4 based on indications that during the 2012 derecho storm ILECs providing 911 service in affected areas failed to follow established network reliability best practices in three specific areas, which resulted in widespread and prolonged 911 outages. To address these deficiencies and ensure improved reliability in the future, the rule contains two components: (1) a substantive requirement that “covered 911 service providers shall take reasonable measures to provide reliable 911 service with respect to circuit diversity, central-office backup power, and diverse network monitoring” and (2) a reporting requirement that such providers certify annually whether they have implemented specified best practices or reasonable alternative measures in each of those substantive areas. The rule defines “covered 911 service providers” as those that provide specified 911 capabilities, or the functional equivalent, “directly

to a PSAP” – typically meaning those entities that provide 911 services pursuant to a contractual agreement with a PSAP or emergency authority.

In light of the multistate 911 outages discussed above and the lessons they provide about 911 network architectures already in use in many parts of the nation, we propose to expand the scope of entities covered by § 12.4 (i.e., the definition of “covered 911 service provider”) to include all entities that provide 911, E911, or NG911 capabilities, such as call routing, automatic location information (ALI), automatic number identification (ANI), location information servers (LIS), text-to-911, or the functional equivalent of those capabilities, regardless of whether they provide such capabilities under a direct contractual relationship with a PSAP or emergency authority. This definition would include all entities that provide 911-specific network infrastructure, but only to the extent that they provide specified 911 capabilities. For example, a wireless carrier would be required to certify with respect to any mobile positioning centers (MPCs), gateway mobile location centers (GMLCs) or other databases that it uses to process and route 911 calls, but not with respect to individual cell sites and its call origination network generally. If a wireless carrier outsources 911 call processing capabilities to a subcontractor, we propose that both the carrier and the subcontractor would be required to certify their respective reasonable measures to maintain reliable 911 service because both entities would provide 911 capabilities specified in the proposed rule. We seek comment on this analysis. This amendment would address 911 network architectures where multiple service providers or sub-contractors provide call routing and ALI/ANI capabilities and ensure that each link in that chain is treated equally under § 12.4. We propose that adding these entities would not change the duties of those who already qualify as covered 911 service providers, except with respect to the new certification elements proposed below, or the duties of their agents under existing principles of

legal liability. However, we seek comment on the existing duties of the agents and sub-contractors of covered 911 service providers, and on the feasibility of extending certification requirements to such entities.

To ensure that § 12.4 keeps pace with evolving network architectures and reliability risks, we also propose to amend § 12.4(b) to provide that “all covered 911 service providers shall take reasonable measures to provide reliable 911 service.” This obligation would include – but not be limited to – the existing areas of circuit diversity, central-office backup power, and diverse network monitoring. While the current § 12.4 only addresses reliability with respect to these three specific areas, we believe it would demonstrate better governance for this rule to require covered entities to take reasonable measures generally to ensure the reliability of 911 service, with specific behavior identified within this rule as necessary to add more detail.

We seek comment on additional network reliability practices that should be incorporated into § 12.4 and its associated certification requirements. Based on the Bureau’s findings with respect to the April 2014 multistate 911 outage and other large-scale disruptions in 911 service described above, we anticipate that one area of particular importance will be the reliability and testing of software and databases used to process 911 calls, including planned maintenance and software upgrades. We also believe that the certification should indicate whether a service provider’s IP-based 911 architecture is geographically distributed, load-balanced, and capable of automatic reroutes to backup equipment in the event of a hardware, network, software or database failure. Finally, we believe the network monitoring component of the existing rule should cover not just the physical diversity of monitoring facilities, but also the proper prioritization of critical network alarms. What other measures should be implemented by covered 911 service providers to mitigate the risk of failure and geographic scope of impacts on

911 service? For example, should the certification address factors such as cybersecurity and supply chain risk management?

We also believe that § 12.4 should reflect and require certification with respect to the duty to take reasonable measures to share information and situational awareness, as appropriate under the circumstances, during disruptions in 911 service. We seek comment on the scope of information and communications that should be reasonably expected from various entities in the 911 ecosystem, including those with direct contractual relationships with PSAPs and those that provide service on a vendor or sub-contractor basis. At a minimum, we believe the certification should indicate whether a covered 911 service provider has a process in place to notify PSAPs of an outage within the timeframes specified in part 4 of the Commission's rules. While this proposal would not change such providers' substantive obligations under part 4, it would provide assurance that they have taken proactive steps to successfully perform their duties under the rules if the need arises. Service providers may also be able to detect outages in real time through call counts, ALI queries, and other methods of analyzing network traffic. To what extent should the certification reflect reasonable measures to detect and disseminate such real-time outage information?

We seek comment on these proposals and on potential alternative approaches. Are there other topics or practices should be incorporated into "reasonable measures" and annual certification requirements? Should any components of the certification require testing or analysis by an independent third party, or is the certifying entity's own attestation sufficient? Should the Commission establish standards, best practices, or other mechanisms to promote the reliability of IP-based 911 network elements and processes not currently covered by § 12.4? Should such standards be voluntary (i.e., best practices) or mandatory? Should providers be

required to report or certify the extent of their compliance with such standards, or should they be required to meet certain standards or performance requirements? Are there instances in an NG911 environment where consensus-based best practices have not yet been established and should be referred to an advisory committee such as the Commission's Communications Security, Reliability, and Interoperability Council (CSRIC) for further development? Should we include any limitations on our incorporation of such existing or future standards or practices in our rules? If we include a more general requirement of reliability, should we include additional guidance as to the standards by which the Commission will measure implementation?

B. Ensuring Transparency and Accountability in Connection With Major Changes to Existing 911 Service

The functionality of the nation's 911 networks increasingly depends on complex relationships between service providers and PSAPs, and often among multiple service providers, sub-contractors, and other affiliated entities themselves. While states and localities are well-positioned under our cooperative governance framework to oversee many aspects of these relationships based on the needs of the PSAPs and residents within their borders, critical 911 network infrastructure is increasingly shared among many jurisdictions and beyond the oversight of individual emergency authorities, and more complex in its design and operation. Accordingly, the end-to-end reliability of a 911 network depends on the sum of its parts and how they function together. We must ensure that this transition process is open and transparent.

1. Major Changes in 911 Service

Transparency is essential as the technologies and entities delivering 911 service capabilities evolve over time. In accordance with section 251 of the Communications Act, the Commission's rules require ILECs to provide public notice regarding any network change that

will (1) affect a competing service provider's performance or ability to provide service, (2) affect the ILEC's interoperability with other service providers, or (3) affect the manner in which customer premises equipment is attached to the interstate network, as well as public notice of network changes that "[w]ill result in the retirement of copper loops or copper subloops, and the replacement of such loops with fiber-to-the-home loops or fiber-to-the-curb loops." While the Commission adopted these requirements primarily to "promote[] open and vigorous competition" among local exchange carriers, as contemplated by the Telecommunications Act of 1996, network change notifications have also yielded information on certain changes in 911 network architecture that affect interconnection with an ILEC. However, an increasing number of covered 911 service providers are not ILECs and are not required to file notifications when changes to their networks may affect 911 connectivity.

We therefore propose to require notification to the Commission and the public of major changes in any covered 911 service provider's network architecture or scope of 911 services that are not otherwise covered by existing network change notification requirements. Although parties to individual contracts for 911 services may be aware of major changes in network architecture or in the entities responsible for various 911 functionalities, the public also has a vested interest in understanding changes that may affect its access to 911. Transparency will also promote cooperation and information-sharing among the increasingly diverse range of entities across the 911 ecosystem. We therefore believe that public disclosure of major changes in 911 service is a key step toward increasing accountability when such changes are not initiated at the request of a PSAP or emergency authority or implemented on an emergency basis to mitigate or recover from the effects of an outage.

We seek comment on this proposal. Which 911 service providers should be subject to notification requirements? Should OSPs, ILECs, SSPs, and their sub-contractors each be responsible for reporting major changes in their respective facilities and networks? Or should ILECs and/or SSPs providing 911 services directly to PSAPs be responsible for notification of major changes by their subcontractors and other affiliated entities? We recognize that in many instances changes in 911 network architecture and the entities providing service occur at the request of PSAPs and state or local emergency authorities that desire new or different 911 capabilities. Should such changes be subject to notification requirements, and if so, who should provide the notification? Who should receive the notification? Should the Commission collect and publish such notifications, as it does with wireline network change notifications required under section 251 of the Act and associated Commission rules? How could public safety professional organizations such as NENA and APCO facilitate the distribution of such information to affected PSAPs? To allow sufficient time for public inspection without unnecessarily delaying beneficial network changes, we propose to require notification at least 60 days before major changes in 911 service take effect. We seek comment, however, on whether a shorter – or longer – time period would strike a more appropriate balance.

We also seek comment on what changes should be considered “major” for notification purposes. In general, we propose that changes with impact on 911 service in more than a single state should be among the changes considered major. We seek comment on this proposal. Would such an approach lead industry to adopt incremental, state-by-state changes that may not be as efficient? Should we establish thresholds based on factors such as the geography or population affected by a change in the provision of 911 service, regardless of whether their effect is limited to a single state or extends to multiple states? Beyond geographic or population

criteria, are there other criteria that for changes in 911 service or network architecture that should trigger a notification requirement? Would it be helpful for an advisory committee such as CSRIC to develop recommendations regarding the types of 911 network changes that should require public notification? Do any existing CSRIC best practices or recommendations provide guidance?

2. Discontinuance or Impairment of Existing 911 Services Essential to Call Completion

In addition to proposing public notification of major changes in 911 networks as described above, we believe that additional safeguards are needed where such changes involve discontinuance, reduction or impairment of existing 911 services that are essential to call completion. As with network change notifications, the Commission already has rules requiring common carriers and interconnected VoIP providers to obtain authorization to “discontinue, reduce, or impair service to a community, or part of a community.” Similarly, we believe that incumbent 911 service providers that have historically taken responsibility for reliable 911 call completion have undertaken a public trust that cannot simply be relinquished at will. While incumbents are entitled to make decisions about their businesses and pursue new and different lines of service, they are not entitled to do so in a manner that endangers the public or leaves stakeholders uninformed with respect to the functioning of the combined network.

We therefore propose that covered 911 service providers that seek to discontinue, reduce, or impair existing 911 service in a way that does not trigger already existing authorization requirements should be required to obtain Commission approval. We seek comment on this proposal, and on ways the Commission might address the details of implementation. Are these changes in 911 service of such critical importance that Commission approval should be required

before such changes proceed? What processes do states and localities currently have in place to evaluate requests to discontinue, reduce or impair existing 911 service, and how can the Commission support and encourage such processes? Would reliance on states and localities to oversee discontinuance, reduction, or impairment of existing 911 services better serve the policy goals of transparency and accountability?

What actions by an incumbent provider short of a complete discontinuance of 911 service would constitute a reduction or impairment of service for purposes of this requirement? What criteria should the Commission use to evaluate a service provider's request to discontinue, reduce or impair existing 911 service? Which changes in the scope of 911 services offered by an incumbent would be most likely to affect reliable 911 call completion? Should the Commission adopt other requirements specific to incumbent providers seeking to exit lines of 911 service or to outsource elements of that service to third parties? Do CSRIC best practices provide guidance on these questions, and should CSRIC be charged with developing additional best practices or recommendations with respect to the discontinuance, reduction, or impairment of existing 911 services?

To be clear, nothing in this NPRM would relieve any carrier or interconnected VoIP provider of the requirement to seek permission to discontinue, reduce, or impair service to the extent required by section 214(a) of the Act and/or the Commission's implementing rules. We do not, however, intend to create duplicative obligations for entities that are already subject to section 214(a) and associated authorization requirements. The process proposed here would apply only when entities seeking to discontinue, reduce, or impair existing 911 service are not already required to obtain approval under other existing Commission rules.

We also do not propose to require public notification or Commission approval under these rules where the discontinuance or reduction of 911 service has been requested or initiated by the PSAP or the responsible state or local emergency authority. We presume that PSAPs and emergency authorities that initiate such changes have the ability to take appropriate steps to safeguard 911 reliability in the affected facilities without Commission intervention.

C. Ensuring Reliability and Accountability of New IP-Based 911 Capabilities and Services

Increased innovation and enhanced competition in the NG911 ecosystem hold the potential to enhance the functionality and utility of 911 while providing PSAPs and emergency authorities with greater choice over which services and products they purchase. At the same time, the increasing diversity of entities offering or planning to offer NG911 services increases the challenge of ensuring that all providers of such services will be capable of meeting appropriate standards of reliability and accountability. It is important that we set clear and consistent expectations with respect to the level of performance that providers of these services will be expected to achieve. Clarifying these obligations is essential to remove uncertainties and barriers to NG911 investment by state, local, and tribal authorities and to maintain public confidence in 911 as the transition to NG911 progresses.

Historically, states have overseen the entry of entities providing 911 service through such mechanisms as tariff conditions or issuance of certificates of public convenience and necessity. However, as we have noted above, covered 911 service providers increasingly are building and operating regional and nationwide IP-based 911 networks that both extend across state boundaries and serve PSAPs in multiple states, using less well established technologies. Thus, while states continue to have authority to regulate provision of 911 service within their

jurisdictions, these multi-state networks transcend the regulatory authority of any individual state. Moreover, many states have elected not to exercise jurisdiction over IP-based communications, a determination that may operate to restrict their ability to ensure the reliability of 911 service that depends on IP-based technology. We therefore believe that a federal-level process is needed to ensure that there are no regulatory gaps in oversight of providers of new 911 services. This process is not intended to supplant state action; to the contrary, it would complement existing state oversight and could be used to empower state-level action.

We propose to require covered 911 service providers that seek to offer new services that affect 911 call completion to certify to the Commission that they have the technical and operational capability to provide reliable 911 service. In addition, to the extent that the new services rely on IP-based networks, associated infrastructure such as servers and data centers, and/or associated software applications, we propose that covered 911 service providers certify that they have conducted a reliability and security risk analysis of the network components, infrastructure, and/or software that they will use to support 911 call completion. This proposal would not require Commission approval of new entrants or delay the introduction of innovative new 911 technologies. It would, however, require entities that seek to provide new critical links in 911 call completion to publicly acknowledge their responsibilities and certify their preparedness to implement relevant best practices and comply with existing Commission rules applicable to the 911 capabilities they provide. This requirement would extend only to IP-based services that are necessary for successful transmission of voice calls and other data to PSAPs. For example, a smart phone “app” that provides the ability to originate calls or text messages to 911 would be subject to certification requirements, while an app that merely enhances or adds value to a smart phone’s existing 911 dialing capabilities would not.

To what extent do state laws, regulations, or common law tort liability already provide adequate assurances of such qualifications, and is there a need for uniform standards in this regard? Are there quality-of-service requirements under state law that would cover 911-related services, and if so, what entities do they cover? Is there immunity under state law against liability for the provision of 911 related services, or communications services by common carriers or others? If so, how does such immunity affect incentives among covered service providers and others to ensure that 911 service is reliable? Do the answers to these questions depend upon whether a service is IP-based? How can the Commission facilitate efforts by states and localities to oversee the effective and reliable deployment of new 911 capabilities?

If we adopt a certification requirement, which entities should be subject to it, and how should we define the scope of new services that would trigger the need for certification? What information should applicants provide to support their certifications? Should applicants be required to analyze network monitoring capabilities, support for situational awareness, and the ability to share outage information with other stakeholders? Should the certification address issues regarding geographic diversity and redundancy in the network, probabilities of equipment failing due to hardware, network, software and procedural failures, as well as the ability to switch to backup systems? To what extent should the risk analysis include cybersecurity and supply-chain risk assessments? Is it sufficient for service providers to conduct their own analysis or should we require analysis and certification by an independent third party? Would it be helpful for an advisory committee such as CSRIC to develop best practices and recommendations that would serve as a basis for a certification of compliance with best practices for new 911 capabilities and services? For example, should CSRIC be charged with recommending guidelines for the reliability and security risk analysis proposed above? Are there

other parts of the communication industry or other industries that have similar certification processes? For example, could the PCI Data Security Standard (PCI DSS) self-certification for entities receiving credit card data provide guidance?

As noted above, we do not envision that the federal certification process proposed here would preempt existing state processes for certification of 911 service providers. We believe, however, that states should have the option of adopting the federal certification framework as the basis for state-level governance. We further propose to allow states to enforce federal certification requirements at the state level. We seek comment on this approach. Is there any potential conflict between federal certification for covered 911 service providers and similar state-level processes, and if so, how could such conflicts be minimized? What processes do states and localities currently use to oversee the entry of new 911 service providers, or entities that provide components of 911 service? Do these forms of oversight apply to all entities currently offering one or more components of 911 service, or only to incumbents or some other class of entities? To the extent that states use tariff conditions to regulate the provision of 911 service, what conditions are typically required of new entrants? In states where 911 is not a tariffed service, how do regulators and PSAPs ensure that all entities offering 911 service are both technically capable and committed to public safety?

We also do not propose that federal certification would extend to the provision of new call processing services or CPE capabilities that are provisioned by PSAPs themselves under the oversight of state and local governments. Nevertheless, we seek comment on how the Commission can work with state and local partners to ensure that the reliability of PSAP call processing is also maximized. Are there best practices or other measures that PSAPs can take to improve the diversity and robustness of their inbound communications links and the reliability of

their CPE? What role should the Commission play with respect to the multi-state deployment and maintenance of new CPE technologies? We note that the Commission recently created a task force on PSAP optimization, which we anticipate will also provide insight regarding PSAP infrastructure, network architecture, and procedures, including call processing.

D. Situational Awareness and Coordination Responsibility During 911 Outages

As demonstrated by recent outage trends, the increasing complexity of IP-based 911 network architecture, combined with the increased diversity of entities supporting 911 capabilities, creates potential obstacles to establishing prompt situational awareness and initiating recovery from major 911 outages. While current Commission rules address outage reporting to the Commission and to affected PSAPs, the experiences during large-scale 911 outages described above also indicate a need for better coordination and information-sharing among communications providers themselves and any subcontractors or vendors that provide components of the nation's 911 networks. In such outages, restoration of 911 service is likely to be significantly delayed when it is unclear which part of the 911 system has failed and which provider is responsible for repairs. A lack of coordination can also lead to the unacceptable result of multiple entities being involved in an outage but no single entity being able to provide timely and comprehensive information about the outage to the PSAPs and public that they serve.

To address these concerns, we believe that more needs to be done to address gaps in situational awareness and coordination when large-scale 911 outages affect multiple jurisdictions and service providers. First, effective information sharing is key when diagnosing and repairing problems that may span multiple providers' networks or originate with one provider but affect many others. Second, in the increasingly diverse NG911 ecosystem, it will be more and more difficult for PSAPs and 911 service providers to coordinate an effective and timely response to

outages without a central clearinghouse for obtaining and disseminating critical information. Accordingly, we propose to clarify responsibility for situational awareness and coordination among 911 service providers, sub-contractors, and other affiliated entities during disruptions in 911 service. While it may not be technically or economically feasible for a single entity to monitor, control, or repair every segment of a 911 network from caller to PSAP, it would be helpful for one covered 911 service provider in each jurisdiction to perform a triage function to mitigate the duration and impact of outages.

To establish a clearinghouse mechanism for critical information during major 911 outages and other significant degradations in service, we propose to establish a class of covered 911 service providers that would assume primary responsibility for situational awareness and information sharing. These entities – which we propose to call “911 Network Operations Center (NOC) providers” – would be responsible for monitoring their networks to detect disruptions or degradations in 911 service, and for affirmatively communicating relevant information, as appropriate, to other stakeholders, including OSPs, SSPs, vendors, PSAPs, state emergency management offices, and the Commission’s Operations Center. As a corollary to this proposal, 911 NOC providers would be empowered to obtain relevant information concerning outages from other covered 911 service providers, who in turn would be required to provide information in response to the 911 NOC provider’s requests. 911 NOC providers would then coordinate with other stakeholders to collect and distribute information regarding the impact of outages on all affected portions of the network from call origination to completion.

We propose that the role of 911 NOC provider for each jurisdiction should be assigned to the entity responsible for transport of 911 traffic to the PSAP or PSAPs serving that jurisdiction. In many cases, we expect that this role would be assumed by the incumbent LEC, because, as

noted above, ILECs have historically provided transport of 911 traffic to PSAPs and have thereby occupied the best position to maintain comprehensive situational awareness, even as SSPs and vendors have come to provide component pieces of those networks. Nevertheless, as 911 networks evolve, other entities may take on the 911 transport responsibilities that ILECs have historically provided. For example, in an NG911 environment, the 911 transport function may be performed by an ESINet provider that receives 911 traffic from originating service providers and directs the traffic to PSAPs served by the ESINet. In such cases, we envision that the ESINet provider would assume the 911 NOC provider role. We seek comment on this approach. Should ILECs, ESINet providers, and other entities responsible for 911 transport be the 911 NOC providers bearing primary responsibility for maintaining situational awareness, sharing information, and coordinating outage recovery among other affected providers? Are there situations where more than one entity can reasonably be described as being responsible for aspects of transport of 911 traffic to the PSAP or PSAPs serving a jurisdiction? In such situations, which entity would be best suited to fill the 911 NOC provider role?

Under this framework, we anticipate the need for only one 911 NOC provider in each jurisdiction; indeed, the 911 NOC provider's role as a clearinghouse for situational awareness will be most effective with a single point of contact for relevant information. We also emphasize that the proposed responsibilities of 911 NOC providers during an outage would be limited in scope. For instance, 911 NOC providers would not be expected to have omniscient situational awareness of the status of 911 network components outside their control except to the extent they are empowered to obtain such information from other parties or through their own network monitoring processes. Instead, 911 NOC providers would serve as a hub for the collection, aggregation, and communication of available information among covered 911 service providers

and other affected stakeholders to mitigate the impact of outages and support rapid restoration of service. In addition, while 911 NOC providers would be tasked with obtaining and disseminating outage information, they would not be legally responsible for adverse consequences resulting from outages attributable to failures of network components outside their control, or for remediating or repairing such failures.

We do not intend these proposals to supersede or replace existing outage reporting requirements under part 4 of the Commission's rules. Thus, we begin with the assumption that all parties covered by existing part 4 requirements would continue to be required to report outages to the Commission that meet the part 4 outage thresholds, and requirements for certain service providers to notify PSAPs and other "911 Special Facilities" of outages affecting 911 service would continue to apply independently of any action taken in this proceeding. We note, however, that the Commission has historically relied on mandatory outage reporting to gather statistical information on trends in communications reliability to assess the effectiveness of best practices and provide policy guidance on efforts to increase network reliability. While closely related, the need to share information and situational awareness among service providers affected by an outage may pose different challenges requiring different oversight mechanisms. We therefore seek comment on the alternative proposal of whether certain obligations currently in part 4 would be better assigned to 911 NOC providers under the framework proposed above. For example, should current responsibilities to notify PSAPs of outages affecting 911 service be incorporated into the information-sharing responsibilities of the 911 NOC provider, rather than the outage-reporting responsibilities of multiple service providers under current § 4.9? Should the Commission consider any other changes to part 4 in light of the responsibilities of 911 NOC providers proposed here?

We also seek comment on processes and mechanisms that 911 NOC providers and other covered 911 service providers could use to carry out their situational awareness and coordination responsibilities proposed here. As described above with respect to reliability certification requirements, service providers may be able to detect outages in real time by tracking the number of 911 calls that enter and exit their networks, an increase in call failure rates, positioning failure rates, or the number of calls that result in an ALI or LIS query from the destination PSAP. Service providers should have alarms configured to bring such discrepancies to the attention of appropriate personnel. To what extent should 911 NOC providers and other covered 911 service providers be expected to share information in real time about call counts and alarms using standardized network management interfaces or other mechanisms? Should CSRIC be charged with developing recommendations on these topics?

How can the Commission facilitate the real-time exchange of information by leveraging technologies such as machine-readable data? Should the Commission require 911 NOC providers or other covered 911 service providers to transmit high-level data on the status of their networks to a centralized “dashboard” allowing users to quickly identify disruptions in any portion of their 911 networks? Who should be given access to such data, and how can the Commission ensure that privacy and confidentiality are protected? Alternatively, should 911 NOC providers be required to maintain a Web page that provides key information on the status of their 911 networks? What information should be included, and should such Web pages be available to the public, or only to PSAPs and other covered 911 service providers?

How can the Commission support and empower 911 NOC providers and other covered 911 service providers to share information under the framework proposed above? One model for improved situational awareness that has been developed in the communications sector is the

Information Sharing and Analysis Center (ISAC), a public-private partnership overseen by the U.S. Department of Homeland Security National Coordinating Center for Communications (NCC). Could a similar model be applied to the 911 ecosystem? Which entities should be eligible to participate, and should certain entities, such as NOC providers, be required to participate? Should the Commission facilitate improved communication by maintaining a centralized database of contact information for PSAPs and state emergency offices, which would allow 911 NOC providers and other covered 911 service providers to compile and update distribution lists for outage notification and recovery? Should the Commission serve as a hub for compilation and distribution of any other information? What role could advisory committees such as CSRIC play?

We also seek comment on issues that could affect the nature and scope of a NOC provider's responsibility for information gathering and dissemination. For example, should the scope of information that the NOC provider is responsible for gathering and disseminating vary depending on where in the call completion process a 911 outage has occurred? If so, what should the 911 NOC provider's responsibility be? To what extent should 911 NOC providers be responsible for addressing cybersecurity risks in 911 networks and sharing information with other stakeholders in the event of a cyber attack? What information should other covered 911 service providers that experience the effects of an outage be expected to communicate back to the 911 NOC provider?

Where a PSAP is served by more than one covered 911 service provider (e.g., where a PSAP has a direct contractual relationship with an ILEC that sub-contracts with an SSP or other affiliated entity for 911 capabilities), should the parties be required to designate specific support roles? Beyond the proposal that primary 911 NOC support is best provided by the 911 transport

provider, should the Commission require covered 911 service providers to designate a hierarchy of responsibility for such support or encourage PSAPs and providers to negotiate their own agreements? Or should such determinations be made at the state or local level through tariff conditions or requests for proposals for 911 service? What information should covered 911 service providers that are not NOC providers be expected to share with each other?

Are there legal or regulatory barriers that currently prevent or discourage 911 service providers, as well as their sub-contractors and other affiliated entities, from sharing information during a 911 outage? What are the specific laws, regulations, or contractual provisions that would preclude such information-sharing, and how can the Commission address those barriers in order to improve efficient, privacy-protective information sharing and situational awareness? Are there issues of legal liability for disclosing customer information that should be addressed as part of the Commission's efforts in this regard? Should the Commission extend liability protections already afforded to certain entities to additional participants in the 911 ecosystem?

E. Legal Authority

The Communications Act of 1934 established the FCC, in part, “for the purpose of promoting safety of life and property through the use of wire and radio communication.” Beyond that general mandate, Congress has repeatedly and specifically endorsed a role for the Commission in the nationwide implementation of advanced 911 capabilities. The Wireless Communications and Public Safety Act of 1999 (911 Act) directed the Commission to “designate 911 as the universal emergency telephone number within the United States for reporting an emergency to appropriate authorities and requesting assistance.” It also directed the Commission to “encourage and support efforts by States to deploy comprehensive end-to-end emergency communications infrastructure and programs, based on coordinated statewide plans,

including seamless, ubiquitous, reliable wireless telecommunications networks and enhanced wireless 911 service.” The New and Emerging Technologies 911 Improvement Act of 2008 (NET 911 Act) further affirmed the Commission’s authority to require interconnected VoIP providers to offer 911 service. The Twenty–First Century Communications and Video Accessibility Act of 2010 (CVAA) also advanced the Commission’s implementation of technologies such as text-to-911 by granting authority to promulgate “regulations, technical standards, protocols, and procedures . . . necessary to achieve reliable, interoperable communication that ensures access by individuals with disabilities to an Internet protocol-enabled emergency network, where achievable and technically feasible.” Together, and in light of the series of 911 outages described above extending across multiple jurisdictions, we believe these provisions authorize – and indeed require – the Commission to take a leadership role, in cooperative partnership with states and localities, in promoting the continued availability and reliability of 911 services nationwide.

To the extent that 911 service providers are common carriers, the Commission also has based 911 reliability requirements on section 201(b) of the Communications Act, which requires the “practices” of common carriers to be “just and reasonable,” and on section 214(d), which provides that a common carrier must “provide itself with adequate facilities for the expeditious and efficient performance of its service as a common carrier.” Where 911 service requirements affect wireless carriers, the Commission also has relied on its Title III authority to “[p]rescribe the nature of the service to be rendered,” and more generally, “to manage spectrum . . . in the public interest.”

With respect to proposals to promote transparency and public notification for changes in 911 service, we note that section 218 of the Act authorizes the Commission to “inquire into the

management of the business of all carriers,” and to obtain from such carriers and from persons directly or indirectly under their control “full and complete information necessary to enable the Commission to perform the duties and carry out the objects for which it was created.” Section 251(c)(5) of the Act also requires each incumbent local exchange carrier to “provide reasonable public notice of changes in the information necessary for the transmission and routing of services,” or “other changes that would affect the interoperability of [its] facilities and networks.” Furthermore, Section 4(o) of the Act states that “[f]or the purpose of obtaining maximum effectiveness from the use of radio and wire communications in connection with safety of life and property,” the Commission “shall investigate and study all phases of the problem and the best methods of obtaining the cooperation and coordination of these systems.” The Commission also has authority, under the New and Emerging Technologies 911 Improvement Act of 2008, to “compile . . . information concerning 9-1-1 and enhanced 9-1-1 elements, for the purpose of assisting IP-enabled voice service providers in complying with this section.” Thus, as part of a cooperative governance structure for 911, the Commission is authorized to gather and disseminate information from carriers and other regulatees for the purpose of ensuring effective public safety communications. We seek comment on the application of these provisions to proposals in this NPRM.

As the Commission concluded in the 911 Reliability Order, “[i]n light of these express statutory responsibilities, regulation of additional capabilities related to reliable 911 service, both today and in an NG911 environment, would be well within Commission’s . . . statutory authority.” That order also committed to review the rules established therein, “in light of our understanding about how NG911 networks may differ from legacy 911 service,” and based on such factors as “outage reporting trends” and “adoption of NG911 capabilities on a nationwide

basis.” Accordingly, we believe that the Commission would have ample legal authority to adopt any or all of the proposals discussed above, consistent with our longstanding policy of cooperation with state and local authorities. We seek comment on this analysis. In particular, we seek comment from state and local regulators and emergency authorities regarding the appropriate balance of federal, state, and local authority in each of the proposals described above.

To the extent that any of the proposals herein affect entities that are not subject to specific statutory authority, we also believe that their adoption would be that “reasonably ancillary to the Commission’s effective performance of its statutorily mandated responsibilities.” Whether or not the increasingly diverse range of entities providing 911 services are common carriers or Commission licensees, they nevertheless have undertaken to provide a critical public safety communications service that is within our general jurisdiction to “promot[e] safety of life and property through the use of wire and radio communication.” In light of the record of recent events leading to significant multistate 911 outages, we believe such proposals would be reasonably ancillary to our fulfillment of the specific statutory mandates to ensure reliable and resilient 911 service across different technologies, as discussed above. We seek comment on this analysis and any other sources of legal authority for the proposals in this Notice.

V. Procedural Matters

A. Ex Parte Presentations

The proceedings initiated by this Notice of Proposed Rulemaking shall be treated as “permit-but-disclose” proceedings in accordance with the Commission’s ex parte rules. Persons making ex parte presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a

different deadline applicable to the Sunshine period applies). Persons making oral ex parte presentations are reminded that memoranda summarizing the presentation must: (1) list all persons attending or otherwise participating in the meeting at which the ex parte presentation was made; and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda, or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during ex parte meetings are deemed to be written ex parte presentations and must be filed consistent with § 1.1206(b). In proceedings governed by § 1.49(f) or for which the Commission has made available a method of electronic filing, written ex parte presentations and memoranda summarizing oral ex parte presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's ex parte rules.

B. Comment Filing Procedures

Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR 1.415, 1.419, interested parties may file comments and reply comments in response to this Notice of Proposed Rulemaking on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://fjallfoss.fcc.gov/ecfs2/>.
- Paper Filers: Parties that choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.
- Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington DC 20554.

C. Accessible Formats

To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

D. Regulatory Flexibility Act

As required by the Regulatory Flexibility Act of 1980, see 5 U.S.C. 604, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules addressed in this document. Written public comments are requested in the IRFA. These comments must be filed in accordance with the same filing deadlines as comments filed in response to this Notice of Proposed Rulemaking as set forth on the first page of this document, and have a separate and distinct heading designating them as responses to the IRFA.

E. Paperwork Reduction Act

This Notice of Proposed Rulemaking contains proposed new information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and OMB to comment on the information collection requirements contained in this document, as required by PRA. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, we seek specific comment on how we might “further reduce the information collection burden for small business concerns with fewer than 25 employees.”

VI. Ordering Clauses

Accordingly, IT IS ORDERED, pursuant to sections 151, 154(i), 154(j), 154(o), 155(c), 201(b), 214(d), 218, 219, 251(e), 301, 303(b), 303(g), 303(j), 303(r), 332, 403, 615, 615a, 615c, 621(b)(3), and 621(d) of the Communications Act of 1934, as amended, 47 U.S.C. sections 151, 154(i), 154(j), 154(o), 155(c), 201(b), 214(d), 218, 219, 251(e), 301, 303(b), 303(g), 303(j), 303(r), 332, 403, 615, 615a, 615c, 621(b)(3), and 621(d), that this Policy Statement and Notice of Proposed Rulemaking in PS Docket Nos. 14-193 and 13-75 IS ADOPTED.

IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Policy Statement and Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

VII. Initial Regulatory Flexibility Analysis

As required by the Regulatory Flexibility Act of 1980, as amended (RFA), the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact of the proposals described in the attached Policy Statement and Notice of Proposed Rulemaking (NPRM) on small entities. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments in the Notice. The Commission will send a copy of the Notice, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA). In addition, the NPRM and IRFA (or summaries thereof) will be published in the Federal Register.

A. Need for, and Objectives of, the Proposed Rules

The NPRM seeks comment on governance mechanisms to promote reliable 911 call completion nationwide and improve situational awareness and information sharing among 911 service providers. Specifically, it proposes to: (1) Amend the Commission's 911 reliability certification rules to cover additional entities and network reliability practices that are vital to call completion; (2) require public notification for major changes in multi-state 911 networks and services, and Commission approval for discontinuance of existing 911 services; (3) require entities seeking to provide new 911 capabilities to certify as to their technical and operational capability to provide reliable service; and (4) designate certain 911 service providers to be

primarily responsible for situational awareness and coordination with other service providers in the event of a 911 outage.

The NPRM also affirms core principles guiding the Commission's approach to 911 governance and proposes mechanisms for the Commission, in cooperation with state and local partners, to ensure that the nation's 911 governance structure keeps pace with evolving technology so that all entities providing 911 service capabilities remain accountable for reliable 911 call completion and accurate situational awareness. As discussed in the NPRM, recent outage trends have revealed new reliability challenges due to geographic consolidation of network infrastructure and an increasing reliance on software-based network components to process and route 911 calls on a regional or national scale. Furthermore, an increasing number of 911 service providers subcontract with third party vendors for call-routing and other technical capabilities that are essential to call completion. As a result, 911 call centers potentially face real-time communication problems in trying to mitigate 911 service problems with 911 service providers and subcontractors. The Commission has a responsibility to promote reliable emergency communications and prevent avoidable failures.

The NPRM builds upon the 911 Reliability Order adopted by the Commission in 2013 following the 2012 derecho storm, and sets forth principals to guide the Commission's 911 governance efforts in light of technology transitions and changing outage trends. In particular, the Policy Statement affirms the Commission's policy of working with state and local partners to ensure reliable 911 call completion as technology transitions consolidate network infrastructure and change the way 911 services are delivered to PSAPs in multiple states. Further, the Commission stresses that service provider changes to 911 services must be transparent and coordinated with the Commission and the appropriate state and local authorities.

B. Legal Basis

The legal basis for any action that may be taken pursuant to this Notice of Proposed Rulemaking is contained in sections 1, 4(i), 4(j), 4(o), 5(c), 201(b), 214(d), 218, 219, 251(e), 301, 303(g), 303(j), 303(r), 332, 403, 615, 615a, 615c, 621(b)(3), and 621(d) of the Communications Act of 1934, 47 U.S.C. 151, 154(i), 154(j), 154(o), 155(c), 201(b), 214(d), 218, 219, 251(e), 301, 303(b), 303(g), 303(j), 303(r), 332, 403, 615, 615a, 615c, 621(b)(3), and 621(d).

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Would Apply

The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules. The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.” In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act. A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).

1. Small Businesses, Small Organizations, and Small Governmental Jurisdictions

Our action may, over time, affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three comprehensive, statutory small entity size standards. First, nationwide, there are a total of approximately 27.5 million small businesses, according to the SBA. In addition, a “small organization” is generally “any not-for-profit

enterprise which is independently owned and operated and is not dominant in its field.”

Nationwide, as of 2007, there were approximately 1,621,315 small organizations. Finally, the term “small governmental jurisdiction” is defined generally as “governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.” Census Bureau data for 2011 indicate that there were 89,476 local governmental jurisdictions in the United States. We estimate that, of this total, as many as 88,506 entities may qualify as “small governmental jurisdictions.” Thus, we estimate that most governmental jurisdictions are small.

The NPRM seeks comment on the class of entities to which the proposals would apply. In the Derecho Report and the 911 Reliability Order the Commission defined “covered 911 service providers,” as those that provide specified 911 capabilities, or the functional equivalent, “directly to a PSAP.” The NPRM asks whether the Commission should expand the “covered 911 service providers” definition to also include all entities that provide 911, E911, or NG911 capabilities, such as call routing, automatic location information (ALI), automatic number identification (ANI), location information servers (LIS), text-to-911, or the functional equivalent of those capabilities, regardless of whether they provide such capabilities under a direct contractual relationship with a PSAP or emergency authority. Depending on how 911 calls are routed and processed in different network architectures, the proposed definition could apply to originating service providers (OSPs) such as wireless carriers and interconnected VoIP providers, incumbent local exchange carriers (ILECs), 911 system service providers (SSPs) that provide 911 services such as call routing and location information to PSAPs, and vendors and subcontractors of such entities to the extent that they provide covered 911 capabilities.

The NPRM seeks comment on which 911 service providers should be subject to additional 911 network change notification requirements, including publicly reporting major changes in their respective facilities and networks that affect PSAPs in multiple states. To the extent that changes in 911 service amount to a discontinuance, reduction, or impairment of existing services, the NPRM proposes to require Commission approval to the extent that authorization is not already required under section 214 of the Communications Act. The NPRM also seeks comment on whether to require 911 entities that propose to offer new services that affect 911 call completion to certify with the Commission baseline assurances of their technical and operational qualifications to provide reliable 911 service, as well as comment on which 911 entities should be subject to this certification.

To facilitate situational awareness and coordination, the NPRM seeks comment on the establishment of a class “911 Network Operations Center (911 NOC) providers,” which would assume primary responsibility for situational awareness and information sharing during disruptions in 911 service. The NPRM proposes that the 911 NOC provide role for each jurisdiction should be assigned to the entity responsible for transport of 911 traffic to the PSAP or PSAPs serving that jurisdiction – typically the local ILEC in legacy network architectures. However, as we transition into IP-based NG911 networks, other entities such as SSPs and emergency services Internet Protocol network (ESINet) providers may receive 911 traffic from an OSP and then direct traffic to the PSAP. The NPRM seeks comment on whether ILECs, ESINet providers or other 911 call transport entities should be the 911 NOC providers under this proposal.

2. Communications Service Entities

Incumbent Local Exchange Carriers (Incumbent LECs). Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census Bureau data for 2007, which now supersede data from the 2002 Census, show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had employment of 999 or fewer, and 44 firms had had employment of 1000 or more. According to Commission data, 1,307 carriers reported that they were incumbent local exchange service providers. Of these 1,307 carriers, an estimated 1,006 have 1,500 or fewer employees and 301 have more than 1,500 employees. Consequently, the Commission estimates that most providers of local exchange service are small entities that may be affected by the rules and policies proposed in the NPRM. Thus under this category and the associated small business size standard, the majority of these incumbent local exchange service providers can be considered small.

Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers. Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census Bureau data for 2007, which now supersede data from the 2002 Census, show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had employment of 999 or fewer, and 44 firms had had employment of 1,000 employees or more. Thus under this category and the associated small business size standard,

the majority of these Competitive LECs, CAPs, Shared-Tenant Service Providers, and Other Local Service Providers can be considered small entities. According to Commission data, 1,442 carriers reported that they were engaged in the provision of either competitive local exchange services or competitive access provider services. Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees and 186 have more than 1,500 employees. In addition, 17 carriers have reported that they are Shared-Tenant Service Providers, and all 17 are estimated to have 1,500 or fewer employees. In addition, 72 carriers have reported that they are Other Local Service Providers. Of the 72, seventy have 1,500 or fewer employees and two have more than 1,500 employees. Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and Other Local Service Providers are small entities that may be affected by rules proposed in the NPRM.

Wireless Telecommunications Carriers (except satellite). This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular phone services, paging services, wireless Internet access, and wireless video services. The appropriate size standard under SBA rules is for the category Wireless Telecommunications Carriers. The size standard for that category is that a business is small if it has 1,500 or fewer employees. For this category, census data for 2007 show that there were 11,163 establishments that operated for the entire year. Of this total, 10,791 establishments had employment of 999 or fewer employees and 372 had employment of 1000 employees or more. Thus under this category and the associated small business size standard, the Commission estimates that the majority of wireless

telecommunications carriers (except satellite) are small entities that may be affected by rules proposed in the NPRM.

Wireless Service Providers. The SBA has developed a small business size standard for wireless firms within the two broad economic census categories of “Paging” and “Cellular and Other Wireless Telecommunications.” Under both categories, the SBA deems a wireless business to be small if it has 1,500 or fewer employees. For the census category of Paging, Census Bureau data for 2002 show that there were 807 firms in this category that operated for the entire year. Of this total, 804 firms had employment of 999 or fewer employees, and three firms had employment of 1,000 employees or more. Thus, under this category and associated small business size standard, the majority of firms can be considered small. For the census category of Cellular and Other Wireless Telecommunications, Census Bureau data for 2002 show that there were 1,397 firms in this category that operated for the entire year. Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment of 1,000 employees or more. Thus, under this second category and size standard, the majority of firms can, again, be considered small.

All Other Telecommunications Providers. To the extent that entities such as SSPs and interconnected VoIP providers are subject to proposals in the NPRM but are not “Wired Telecommunication Carriers,” “Wireless Telecommunication Carriers,” or “Cellular and Other Wireless Telecommunications” under the categories listed above, the closest U.S. Census category appears to be “All Other Telecommunications.” All Other Telecommunications is defined as follows: “This U.S. industry comprises establishments primarily engaged in providing specialized telecommunications services, such as . . . Internet services or voice over Internet protocol (VoIP) services via client-supplied telecommunications connections.” In analyzing

whether a substantial number of small entities would be affected by the requirements proposed in the NPRM, the Commission notes that the SBA has developed a small business size standard for All Other Telecommunications, which consists of all such firms with gross annual receipts of \$30 million or less. For this category, census data for 2007 show that there were 2,639 establishments that operated for the entire year. Of those establishments, a total of 1,912 had gross annual receipts between \$100,000 and \$1 million; 487 had gross annual receipts between \$1 million and \$25 million; and 240 had gross annual receipts over \$25 million. Thus, a majority of All Other Telecommunications firms potentially affected by the proposals in the NPRM can be considered small.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

As noted above, the NPRM proposes to (1) amend the Commission's 911 reliability certification rules to cover additional entities and network reliability practices that are vital to call completion; (2) require public notification for major changes in multi-state 911 networks and services, and Commission approval for discontinuance of existing 911 services; (3) require entities seeking to provide new 911 capabilities to certify as to their technical and operational capability to provide reliable service; and (4) designate certain 911 service providers to be primarily responsible for situational awareness and coordination with other service providers in the event of a 911 outage.

The NPRM proposes that a covered 911 service provider take reasonable measures to provide reliable service and complete an annual certification indicating whether it has implemented specified best practices or reasonable alternative measures. Covered 911 service providers' "reasonable measures" obligation would include –but would not be limited to—

existing areas of circuit diversity, central-office backup power, and diverse network monitoring. Further, covered 911 service providers' certifications to the Commission would indicate whether IP-based 911 architecture is geographically distributed, load-balanced, and capable of automatic reroutes to backup equipment in the event of a hardware, network, software or database failure. The networking monitoring section of the certification would also include current requirements for physical diversity of monitoring facilities, but also the proper prioritization of critical network alarms. Further, the NPRM proposes that 911 entities have a duty to take reasonable measures to communicate with other 911 entities during disruptions in 911 service. Providers would be required to certify whether they have an outage notification process in place to notify PSAPs of disruptions in 911 service within time frames specified in part 4 of the Commission rules.

These proposals build upon the existing 911 reliability certification process for covered 911 service providers that the Commission established in 2013. Under this process, a corporate officer with supervisory and budgetary authority over network operations in all relevant service areas must file an annual attestation with the Commission describing the entity's implementation of specified best practices, or if it is not feasible to implement those best practices, a description of reasonable alternative measures designed to mitigate the risk of failure. The option of certifying alternative measures is designed to provide flexibility to small entities operating in diverse service areas, which may have unique ways of addressing network reliability challenges. Because many covered 911 service providers have indicated they already conduct activities that form the basis for this certification in the normal course of business, the Commission expects the additional burden of filing certifications to be minimal. Certifications will be submitted through a simple online form, which is designed to allow small entities to input certification information

and upload an attestation from a corporate officer without the need for any specialized personnel. In some cases, however, covered 911 service providers may choose to hire consultants or engineers to conduct technical aspects of the certification, or an attorney to review certification information for compliance with applicable rules. However, the Commission expects that most covered 911 service providers, including small entities, will be able to complete and submit the annual certification using only in-house personnel.

The NPRM proposes to require notification to the Commission and the public of major changes in any 911 service provider's network architecture or scope of 911 services that are not otherwise covered by existing network change notification requirements. The NPRM seeks comment on the specific changes that would be subject to notification requirements but proposes generally that changes affecting 911 service to PSAPs in multiple states would be considered "major" and subject to public notification. The proposed notifications would be filed with the Commission in a process similar to the existing network change notifications required from incumbent LECs under section 251 of the Communications Act. These are typically relatively short filings describing the nature of the planned changes and location(s) affected. Some companies may wish to have an attorney review such notifications for compliance purposes, but the proposal does not require such a review.

For incumbent 911 service providers that seek to discontinue, reduce or impair existing 911 service in a way that does not trigger already existing authorization requirements under section 214 of the Communications Act, the NPRM proposes to require prior Commission approval. The NPRM seeks comment on which actions by an incumbent 911 service provider would be considered a discontinuance, reduction or impairment of service. However, this proposal would not include changes requested by a PSAP or the responsible state or local

emergency authority that might otherwise constitute a discontinuance, reduction or impairment of service. Commission approval under this proposal would require the applicant to file a request to discontinue, reduce, or impair 911 services stating the nature of the changes, the location(s) affected, and the anticipated date of the changes. If the Commission does not act on such a request within 60 days, the request will be deemed approved. As noted above, certain applicants may wish to hire engineers, consultants, or attorneys to review applications for discontinuance or technical portions thereof, but there is no such requirement in the proposed rule.

The NPRM also proposes to require covered 911 service providers that seek to offer new services that affect 911 call completion to certify to the Commission that they have the technical and operational capability to provide reliable 911 service. To the extent that the new services rely on IP-based networks, associated infrastructure such as servers and data centers, and/or associated software applications, the NPRM proposes that covered 911 service providers certify that they have conducted a reliability and security risk analysis of the network components, infrastructure, and/or software that they will use to support 911 call completion. This proposal would not require Commission approval of new entrants or delay the introduction of new 911 technologies. It would, however, require entities that seek to provide new critical links in 911 call completion to publicly acknowledge their responsibilities and certify their preparedness to implement relevant best practices and comply with existing Commission rules applicable to the 911 capabilities they provide. The Commission does not anticipate the need for any specialized personnel to provide such a certification.

To improve situational awareness during 911 outages, the NPRM proposes to establish a class of “911 Network Operations Center (911 NOC) providers,” which would assume primary

responsibility for monitoring their networks to detect disruptions or degradations in 911 service, and for affirmatively communicating relevant information, as appropriate, to other affected 911 entities, including OSPs, SSPs, vendors, PSAPs, state emergency management offices, and the Commission's Operations Center. The role of the 911 NOC provider would be assigned to the entity responsible for transport of 911 traffic to the PSAP(s) in each jurisdiction. 911 NOC providers would receive information from, and coordinate with other covered 911 service providers to collect and distribute information regarding the impact of outages on all affected portions of the network from call origination to completion. The NPRM seeks comment on other responsibilities of the 911 NOC provider, as well as the responsibilities of other covered 911 service providers to share information with the 911 NOC provider. The Commission anticipates that most or all of these information-sharing activities would be performed by in-house personnel who already are employed to monitor and maintain covered 911 service providers' networks. In any event, the NPRM proposes that 911 NOC providers would not be legally responsible for outages attributable to failures of network components outside their control, or for remediating or repairing such failures.

E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

The RFA requires an agency to describe any significant, specifically small business alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): “(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design,

standards; and (4) and exemption from coverage of the rule, or any part thereof, for small entities.”

The NPRM seeks to update and enhance the Commission’s current 911 reliability certification rules, which complement its general approach of encouraging communications providers to voluntarily implement best practices and measuring compliance through certification requirements and outage reporting. Thus, small entities with limited resources would continue to enjoy many of the benefits of the current regime, including a general focus on network performance and reliability rather than specific design requirements. The option to certify reasonable alternative measures in lieu of specified certification requirements also provides flexibility to small entities, and the online system for submission of certification information is designed for ease of use by all communications providers without the need for specialized personnel. Public notifications and certifications proposed in the NPRM would follow similar submission processes and would not mandate any specific standards for 911 network architecture. The Commission has traditionally considered this approach a more flexible and less costly alternative to more comprehensive regulation, and the NPRM would preserve those advantages in large part.

Furthermore, the proposals in the NPRM apply primarily to service providers that offer 911 services on a multi-state scale to PSAPs in multiple jurisdictions. For example, IP-based 911 call routing capabilities are typically concentrated in a small number of servers and databases that may serve PSAPs across the country. Our proposals with respect to public notification and Commission approval of major changes in 911 service or discontinuance of 911 service also would apply only to providers serving PSAPs in multiple states. Thus, while there is

no explicit exemption proposed for small entities, many of the rules by their nature will tend to apply only to larger communications providers that operate major, multi-state 911 networks.

To the extent that the NPRM would impose new obligations on small entities, we seek comment on alternatives including (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities. Which of the proposed approaches do small entities find particularly difficult or costly to comply with, and how could those difficulties be addressed through modifications or exemptions? What would be the effect on public safety of exemptions from 911 service requirements, regardless of cost?

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

None.

List of Subjects in 47 CFR part 12

Resiliency, Redundancy and Reliability of Communications.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch,

Secretary.

PROPOSED RULES

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR part 12 as follows:

PART 12 – RESILIENCY, REDUNDANCY, AND RELIABILITY OF COMMUNICATIONS

- 1.** Revise the authority for part 12 to read as follows:

AUTHORITY: 47 U.S.C. 151, 154(i), 154(j), 154(o), 155(c), 201(b), 214(d), 218, 219, 251(e), 301, 303(b), 303(g), 303(j), 303(r), 332, 403, 615, 615a, 615c, 621(b)(3), and 621(d).

- 2.** In § 12.4 revise paragraph (a)(4); add paragraphs (a)(12) through (14); revise paragraphs (b) and (c)(3); and add paragraphs (c)(4) and (5) to read as follows:

§ 12.4 Reliability of covered 911 service providers

(a) * * *

(4) Covered 911 service provider.

(i) Any entity that:

(A) Provides call routing, automatic location information (ALI), automatic number identification (ANI), location information services (LIS), text-to-911, or any other capability required for delivery of 911, E911, or NG911, or the functional equivalent of any of those capabilities, to a public safety answering point (PSAP), statewide default answering point, or appropriate local emergency authority as such entities are defined in § 64.3000(b) of this chapter, whether directly or indirectly as a contractor or agent to any other entity; and/or

(B) Operates a central office that directly serves a public safety answering point (PSAP), statewide default answering point, or appropriate local emergency authority as such entities are defined in § 64.3000(b) of this chapter. For purposes of this section, a central office

directly serves a PSAP, statewide default answering point, or appropriate local emergency authority if it hosts a selective router or the functional equivalent, hosts an ALI/ANI database or the functional equivalent, or is the last service-provider facility through which a 911 trunk or administrative line passes before connecting to a PSAP, statewide default answering point, or appropriate local emergency authority.

(ii) The term “covered 911 service provider” shall not include:

(A) PSAPs or governmental authorities to the extent that they provide 911, E911, or NG911 capabilities; or

(B) Communications providers that solely originate voice calls or text messages to 911 but do not provide any of the capabilities or services described in paragraph (a)(4)(i) of this section.

* * * * *

(12) Geographically distributed. For purposes of this section, 911 network architecture is geographically distributed if all calls on the 911 network can be routed through more than one database or call processing facility in more than one geographic location.

(13) Load balanced. For purposes of this section, 911 network architecture is load balanced if call volume is dynamically distributed among multiple active databases or call processing facilities rather than concentrated in one active location.

(14) Situational awareness. For purposes of this section, situational awareness means the ability to detect disruptions or degradations in 911 service, to assess the scope and impact of such disruptions or degradations in 911 service, and to share information as appropriate to mitigate and resolve such impacts.

(b) Provision of reliable 911 service. All covered 911 service providers shall take reasonable measures to provide reliable 911 service. Performance of the elements of the Certification set forth in paragraphs (c)(1)(i), (c)(2)(i), (c)(3)(i), (c)(4)(i), and (c)(5)(i) of this section shall be deemed to satisfy the requirements of this paragraph (b). If a covered 911 service provider cannot certify that it has performed a given element, the Commission may determine that such provider nevertheless satisfies the requirements of this paragraph (b) based upon a showing in accordance with paragraph (c) of this section that it is taking alternative measures with respect to that element that are reasonably sufficient to mitigate the risk of failure, or that one or more certification elements are not applicable to its network.

(c) * * *

(3) Network monitoring.

(i) A covered 911 service provider shall certify whether it has, within the past year:

- (A) Conducted Diversity Audits of the Aggregation Points that it uses to gather network monitoring data in each 911 Service Area;
- (B) Conducted Diversity Audits of Monitoring Links between Aggregation Points and NOCs for each 911 Service Area in which it operates;
- (C) Implemented Physically Diverse Aggregation Points for network monitoring data in each 911 Service Area and Physically Diverse Monitoring Links from such aggregation points to at least one NOC; and
- (D) Established appropriate alarms for network failures that would be reasonably likely to result in a disruption of 911 service within a 911 Service Area, and procedures designed to ensure that such alarms quickly bring such network failures to the attention of appropriate personnel.

(ii) If a covered 911 service provider has not implemented all of the elements in paragraph (c)(3)(i) of this section, it must certify with respect to each such 911 Service Area:

(A) Whether it has taken alternative measures to mitigate the relevant risk, or is taking steps to remediate any vulnerabilities that it has identified with respect thereto, in which case it shall provide a brief explanation of such alternative measures or such remediation steps, the date by which it anticipates such remediation will be completed, and why it believes those measures are reasonably sufficient to mitigate such risk; or

(B) Whether it believes that one or more of the requirements of this subsection are not applicable to its network, in which case it shall provide a brief explanation of why it believes any such requirement does not apply.

(4) Database and software configuration and testing.

(i) A covered 911 service provider shall certify whether it has, within the past year:

(A) Implemented reasonable measures to ensure that any Internet Protocol (IP)-based architecture used to provide 911, E911, or NG911 capabilities defined in paragraph (a)(4)(i) of this section is geographically distributed, load balanced, and capable of automatic reroutes in the event of a software or database failure.

(B) Implemented reasonable measures to ensure that any software or database used by the covered 911 service provider to provide 911, E911, or NG911 capabilities such as call routing, automatic location information (ALI), automatic number identification (ANI), location information services (LIS), text-to-911, or the functional equivalent of those capabilities, is designed, configured, and tested to ensure reliable operation.

(C) Implemented reasonable measures to maintain continuity of 911 service during planned maintenance and/or updates to any software or database used to provide 911, E911, or NG911 capabilities.

(ii) If a covered 911 service provider has not implemented all of the elements in paragraph (c)(4)(i) of this section ,it must certify:

(A) Whether it has taken alternative measures to mitigate the risk of a hardware, network, software, database, or other failure or is taking steps to remediate any issues that it has identified with respect thereto, in which case it shall provide a brief explanation of such alternative measures or such remediation steps, the date by which it anticipates such remediation will be completed, and why it believes those measures are reasonably sufficient to mitigate such risk; or

(B) Whether it believes that one or more of the requirements of this subsection are not applicable to its network, in which case it shall provide a brief explanation of why it believes any such requirement does not apply.

(5) Situational awareness and information sharing.

(i) A covered 911 service provider shall certify whether it has, within the past year:

(A) Implemented reasonable measures to maintain real-time situational awareness regarding the operational status of 911, E911, or NG911 service throughout any portion(s) of the 911 network that it owns, leases, or otherwise operates or controls or as to which it otherwise provides any of the capabilities or services described in paragraph (a)(4)(i)(A) of this section.

(B) Implemented reasonable measures to share appropriate information with PSAPs and other covered 911 service providers in the event of a disruption of 911 E911, or NG911

service, including, at a minimum, the information required under part 4 of the Commission's rules and under § 12.7 .

(ii) If a covered 911 service provider has not implemented all of the elements in paragraph (c)(5)(i) of this section, it must certify:

(A) Whether it has taken alternative measures to mitigate the risk of inadequate situational awareness and information sharing or is taking steps to remediate any issues that it has identified, in which case it shall provide a brief explanation of such alternative measures or such remediation steps, the date by which it anticipates such remediation will be completed, and why it believes those measures are reasonably sufficient to mitigate such risk; or

(B) Whether it believes that one or more of the requirements of this subsection are not applicable to its network, in which case it shall provide a brief explanation of why it believes any such requirement does not apply.

* * * * *

3. Add § 12.5 to read as follows:

§ 12.5 Transparency and accountability in connection with major changes in 911 service.

(a) Major Changes in 911 network architecture and services. A covered 911 service provider, as defined in § 12.4(a)(4), seeking to make major changes in its 911 network architecture and services shall file a public notification under this section, except as provided under paragraphs (a)(3) through (5) of this section.

(1) For purposes of this section, the following actions by a covered 911 service provider constitute major changes in 911 network architecture and services:

(i) A change in 911 network architecture that affects the primary geographic routing or logical processing of voice calls, automatic location information (ALI), automatic number

identification (ANI), location information services (LIS), text-to-911, or functionally equivalent capabilities, to public safety answering points (PSAPs), statewide default answering points, or appropriate local emergency authorities in more than one state;

(ii) A change in 911 network architecture that affects the availability of backup routing or processing capabilities for voice calls, ALI, ANI, LIS, text-to-911, or functionally equivalent capabilities, to PSAPs, statewide default answering points, or appropriate local emergency authorities in more than one state; or

(iii) A change in the allocation of primary responsibility with respect to provision of any of the capabilities or services described in § 12.4(a)(4)(i) affecting more than one state, including but not limited to a covered 911 service provider's allocation of such responsibilities to a sub-contractor or other third party.

(2) Notifications under this section shall be filed with the Commission at least 60 days before the changes described therein take effect.

(i) Notifications shall state publicly the nature of the proposed changes, the geographic area(s) or jurisdiction(s) affected, the anticipated date of the changes, and any other relevant information.

(ii) To the extent that notifications contain information that would cause competitive harm or a threat to public safety or national security if disclosed, a covered 911 service provider may request confidential treatment of such information under § 0.459 of this chapter.

(3) Changes initiated by a PSAP or emergency authority. Changes in 911 network architecture or service initiated by a public safety answering point (PSAP) or state or local emergency authority shall not require a notification to be filed under this section.

(4) Changes subject to public notice under Section 251. Changes in 911 network architecture or service that require public notice of network changes under § 51.325 of this chapter shall not require a separate notification under this section.

(5) Emergency changes. Changes in 911 architecture or services reasonably necessary to mitigate the impacts of a disruption or degradation in 911 service, including temporary re-routes to backup equipment or secondary PSAPs, shall not require a notification to be filed under this section.

(b) Discontinuance, reduction, or impairment of existing 911 services. A covered 911 service provider, as defined in § 12.4(a)(4), seeking to discontinue, reduce, or impair existing 911 services shall file a public notification with the Commission and receive approval from the Commission before undertaking such actions, except as provided in paragraphs (b)(3) and (4) of this section.

(1) For purposes of this section, the following actions by a covered 911 service provider constitute a discontinuance, reduction, or impairment of existing 911 services:

(i) Exit from a line of 911 services previously provided to PSAPs, statewide default answering points, or appropriate local emergency authorities in more than one state;

(ii) Termination or reduction in technical support or maintenance for 911 network components or customer premises equipment (CPE) to PSAPs, statewide default answering points, or appropriate local emergency authorities in more than one state; or

(iii) Reduction or impairment of quality-of-service levels for 911 services to PSAPs, statewide default answering points, or appropriate local emergency authorities in more than one state.

(2) Applications for discontinuance, reduction, or impairment of existing 911 services under this section shall be filed with the Commission at least 60 days before the changes described therein are requested to take effect. The Commission shall respond within 60 days by approving the request, approving the request subject to conditions, or denying the request. If the Commission takes no action within 60 days, the request shall be deemed approved.

(i) Applications shall state publicly the nature of the proposed discontinuance, reduction, or impairment, the geographic area(s) or jurisdiction(s) affected, the anticipated date of the changes, and any other relevant information.

(ii) To the extent that applications contain information that would cause competitive harm or a threat to public safety or national security if disclosed, a covered 911 service provider may request confidential treatment of such information under § 0.459 of this chapter.

(3) Changes initiated by a PSAP or emergency authority. Changes in 911 network architecture or service initiated by a PSAP or state or local emergency authority, including changes that would otherwise constitute a discontinuance, reduction, or impairment of existing 911 services under paragraph (b) of this section, shall not require Commission approval under this section.

(4) Changes subject to Section 214 authorization. Changes in 911 network architecture or service that require Commission authorization under Section 214 of the Communications Act and associated Commission rules shall not require separate Commission approval under this section.

4. Add § 12.6 to read as follows:

§ 12.6 Reliability and accountability of new IP-based 911 capabilities and services.

(a) Certification of capability to provide reliable 911 service. Entities that propose to provide one or more of the capabilities of a covered 911 service provider, as defined in § 12.4(a)(4), but do not provide such capabilities prior to November 21, 2014, shall certify to the Commission that they:

- (1) Possess the technical and operational capability to provide reliable 911 service;
- (2) Have conducted a reliability and security risk analysis of any network components, infrastructure and/or databases and software used to support 911 call completion, including automatic location information (ALI), automatic number identification (ANI), location information services (LIS), text-to-911, or the functional equivalent of those capabilities; and
- (3) Understand and agree to abide by the Commission's annual reliability certification requirements under this part 12, any applicable outage reporting or PSAP outage notification requirements under § 4.9 of this chapter, and any other Commission rules applicable to the new 911 capabilities that it offers.

(b) [Reserved]

5. Add § 12.7 to read as follows:

§ 12.7 Situational awareness and coordination responsibility during disruptions in 911 service.

(a) Designation of 911 Network Operations Center (NOC) Provider. The covered 911 service provider responsible for transport of 911 calls and associated information to the public safety answering point (PSAP), statewide default answering point, or appropriate local emergency authority in each jurisdiction, pursuant to a contractual relationship with that PSAP, statewide default answering point, or appropriate local emergency authority, shall be the 911 NOC Provider in that jurisdiction.

(b) Responsibilities of 911 NOC Provider. The 911 NOC Provider in each jurisdiction shall monitor the availability of 911 services and coordinate situational awareness and information sharing during disruptions in 911 service. For purposes of this section, disruptions in 911 service include events resulting in a complete loss of 911 service, as well as events that substantially impair service quality or public access to 911 without a complete loss of service, including disruption of automatic location information (ALI), automatic number identification (ANI), location information services (LIS), or any other services that locate callers geographically.

(1) In the event of such a disruption in 911 service, the 911 NOC Provider shall request information from any other affected covered 911 service provider(s) regarding their situational awareness of the cause and scope of the outage from the origination to the completion of 911 communications, including voice calls, ALI, ANI, LIS, and text-to-911. The 911 NOC Provider shall then communicate to any other affected covered 911 service providers, PSAPs, state emergency management offices, and to the Commission's Operations Center, all information reasonably available to mitigate the effects of the disruption and to restore service.

(2) All other covered 911 service providers shall communicate to the 911 NOC Provider all reasonably available information regarding the cause and scope of a disruption in 911 service that occurs on or affects portions of the 911 network that they own, lease, or otherwise operate or control and shall respond promptly to any request for such information by the 911 NOC Provider.

